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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/516,295

09/13/2005

Artur Lachowicz

80385(47762)

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EXAMINER

HEINCER, LIAM J

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/516,295	<b>Applicant(s)</b> LACHOWICZ ET AL.	
	<b>Examiner</b> Liam J. Heincer	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 7-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-10 is/are rejected.
- 7) ☒ Claim(s) 1-4 and 7-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/2007</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The information disclosure statement filed August 21, 2007 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

### ***Claim Objections***

Claims 1-4 and 7-10 are objected to because of the following informalities: line two lists a molecular weight but fails to give units for the value. Appropriate correction is required.

For the purpose of further examination the units for the molecular weight are being interpreted as g/mol.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Irie et al. (US Pat. 5,959,028) in view of Moren et al. (US 5,268,473) and Noomen et al. (US Pat. 5,219,958).

Considering Claim 1: Irie et al. teaches a curable composition (1:5-6) comprising a compound having at least two unsaturated groups which are activated for Michael addition (2:21-23), a compound having at least two activated hydrogen atoms (4:14-15), a tertiary phosphine (4:37) and a carboxylic acid (4:49-51).

Irie et al. does not teach the tertiary phosphine as being a tertiary alkyl phosphine. However, Moren et al. teaches using tributylphosphine or trioctylphosphine/a tertiary alkyl phosphine (13:25-40) as a catalyst in a composition comprising a Michael donor and acceptor (3:25-31). Irie et al. and Moren et al. are combinable as they are concerned with the same field of endeavor, namely catalyzed reactions between Michael donors and acceptors. It would have been obvious to use the tributylphosphine or trioctylphosphine of Moren et al. in the composition of Irie et al., and the motivation to do so would have been, as Moren et al. suggests, the trialkylphosphines are the most efficient catalysts for Michael additions (12:51-55).

Irie et al. does not teach the carboxylic acid as being a saturated fatty acid with a molecular weight of 80 or less. However, Noomen et al. teaches using formic, acetic or propionic acid (6:1-4) in a composition comprising a Michael donor and acceptor (2:23-27). Irie et al. and Noomen et al. are combinable as they are concerned with the same field of endeavor, namely curable compositions. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have used the carboxylic acids of Noomen et al. in the composition of Irie et al., and the motivation to do so would have been, as Noomen et al. suggest, these acids are volatile at the curing conditions of the composition (5:50-54).

Irie et al. does not teach the carboxylic acid as being added before the catalyst. However, it is well known in the art to change the sequence of adding ingredients. It

would have been obvious to a person having ordinary skill in the art at the time of invention to have added the carboxylic acid to the composition before the catalyst, and the motivation to do so would have been to prevent the reaction mixture from curing before application. See MPEP § 2144.04.

Considering Claim 2: Irie et al. teach the unsaturated groups and activated hydrogen atoms as being in a molar ratio of 4:1 to 1:4 (6:11-15).

Considering Claim 3: Irie et al. teach the tertiary phosphine being present in an amount from 0.1-10% by weight (6:15-18).

Considering Claim 4: Irie et al. teach the carboxylic acid as being present in an amount from 0.05-10% by weight (Table 2).

Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Irie et al. (US Pat. 5,959,028) in view of Moren et al. (US 5,268,473) and Noomen et al. (US Pat. 5,219,958).

Considering Claims 7-10: Irie et al. Moren et al. and Noomen et al. collectively teach the compositions of claims 1-4. Irie et al. also teaches forming a cured/cross-linked coating from the composition (6:33-44).

Claims 1-4 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lachowicz et al. (US Pat. 6,897,264) in view of Noomen et al. (US Pat. 5,219,958).

Considering Claim 1: Lachowicz et al. teaches a curable composition comprising a compound having at least two unsaturated groups which are activated for Michael addition (2:1-5), a compound having at least acetoacetate groups /two activated hydrogen atoms (3:25-35) and a trialkyl/tertiary alkyl phosphine (2:9-13).

Lachowicz et al. does not teach adding a carboxylic acid that is a saturated fatty acid with a molecular weight of 80 or less. However Noomen et al. teaches using formic, acetic or propionic acid to inhibit the catalyst (6:1-4) in a composition comprising a Micheal donor and acceptor (2:23-27). Lachowicz et al. and Noomen et al. are combinable as they are concerned with the same field of endeavor, namely curable compositions. It would have been obvious to a person having ordinary skill in the art at

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the time of the invention to have used the carboxylic acids of Noomen et al. in the composition of Lachowicz et al., and the motivation to do so would have been, as Noomen et al. suggest, these acids are volatile at the curing conditions of the composition (5:50-54).

Lachowicz et al. does not teach the carboxylic acid as being added before the catalyst. However, it is well known in the art to change the sequence of adding ingredients. It would have been obvious to a person having ordinary skill in the art at the time of invention to have added the carboxylic acid to the composition before the catalyst, and the motivation to do so would have been to prevent the reaction mixture from curing before application. See MPEP § 2144.04.

Considering Claim 2: Lachowicz et al. teaches the ratio of the unsaturated groups to the activated hydrogens as being from 1:3 to 3:1 (3:58-60).

Considering Claim 3: Lachowicz et al. teaches the tertiary alkyl phosphine as being present in an amount of 0.05 to 5.0 weight percent (3:64-65).

Considering Claim 4: Lachowicz et al. does not teach the carboxylic acid as being present in the claimed amount. However, it is well known in the art to optimize result effective variables such as ingredient concentration. See MPEP § 2144.05. It would have been obvious to a person having ordinary skill in the art at the time of invention to have used the acid in the claimed amount, and the motivation to do so would have been, as Noomen et al. suggests, the amount of acid should be roughly equimolar to the amount of catalyst to inhibit the catalyst (6:5-12).

Considering Claims 7-10: Lachowicz et al. teach the composition used to make a crosslinked coating (4:38-54).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO Form 892.

### ***Double Patenting***

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP

Chapter 2300). Commonly assigned U.S. Patent No. 6,897,264, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,897,264 in view of Brindöpke et al. (US Pat. 4,871,822) and Noomen et al. (US Pat. 5,219,958).

Considering Claim 1: Patent '264 teaches a curable composition comprising a compound having at least two unsaturated groups which are activated for Michael addition (line 2), a compound having at least one activated hydrogen atom (line 3) and a trialkyl/tertiary alkyl phosphine (line 3).

Patent '264 does not teach the compound having an activated hydrogen atom as having at least two activated hydrogen atoms. However, Brindöpke et al. teaches curable composition comprising a compound with at least two activated hydrogen atoms (2:15-19). Patent '264 and Brindöpke et al. are combinable as they are concerned with the same field of endeavor, namely curable compositions. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have used a compound with at least two activated hydrogen atoms as in Brindöpke et al. in the composition of Patent '264, and the motivation to do so would have been, as Brindöpke et al. suggests, to increase the reactivity and cross-linking of the composition (3:4-9).

Patent '264 does not teach adding a carboxylic acid that is a saturated fatty acid with a molecular weight of 80 or less. However Noomen et al. teaches using formic, acetic or propionic acid to inhibit the catalyst (6:1-4) in a composition comprising a Micheal donor and acceptor (2:23-27). Patent '264 and Noomen et al. are combinable as they are concerned with the same field of endeavor, namely curable compositions. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have used the carboxylic acids of Noomen et al. in the composition of Patent '264, and the motivation to do so would have been, as Noomen et al. suggest, these acids are volatile at the curing conditions of the composition (5:50-54).



Patent '264 does not teach the carboxylic acid as being added before the catalyst. However, it is well known in the art to change the sequence of adding ingredients. It would have been obvious to a person having ordinary skill in the art at the time of invention to have added the carboxylic acid to the composition before the catalyst, and the motivation to do so would have been to prevent the reaction mixture from curing before application. See MPEP § 2144.04.

Claims 2-4 and 7-10 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,897,264 in view of Brindöpke et al. (US Pat. 4,871,822) and Noomen et al. (US Pat. 5,219,958) as applied to claim 1 above, and further in view of Irie et al. (US Pat. 5,959,028).

Patent '264, Brindöpke et al., and Noomen et al. collectively teach the composition of claim 1 as shown above.

Considering Claim 2: Patent '264 does not teach the molar ratio of unsaturated groups to activated hydrogen atoms as being from 4:1 to 1:4. However, Irie et al. teaches the unsaturated groups and activated hydrogen atoms as being in a molar ratio of 4:1 to 1:4 (6:11-15). Patent '264 and Irie et al. are combinable as they are concerned with the same field of endeavor, namely Michael addition reaction compositions. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have used components in the molar ratio of Irie et al. in the composition of Patent '264, and the motivation to do so would have been, as Irie et al. suggests, to provide a curable composition (6:11-15).

Considering Claim 3: Patent '264 does not teach the phosphine as being present in an amount from 0.1 to 10 weight percent. However, Irie et al. teaches the tertiary phosphine being present in an amount from 0.1-10% by weight (6:15-18). It would have been obvious to a person having ordinary skill in the art at the time of the invention to have added the phosphine in this amount to the composition of Patent '264 as in Irie et al., and the motivation to do so would have been, as Irie et al. suggests, to catalyze the Michael reaction (4:44-48).

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Considering Claim 4: Patent '264 does not teach the acid as being present in an amount from 0.1 to 10 weight percent. However, Irie et al. teaches the carboxylic acid as being present in an amount from 0.1-10% by weight (Table 2). It would have been obvious to a person having ordinary skill in the art at the time of the invention to have added the carboxylic acid in this amount to the composition of Patent '264 as in Irie et al., and the motivation to do so would have been, as Irie et al. suggests, to block the basic catalyst (4:44-48).

Considering Claims 7-10: Patent '264 does not teach the composition as forming a cured coating. However, Irie et al. teaches forming a cured/cross-linked coating from the composition (6:33-44). It would have been obvious to a person having ordinary skill in the art at the time of the invention to have formed a coating from the composition of Patent '264 as in Irie et al., and the motivation to do so would have been, as Irie et al. suggests, it provides a coating that can cure at ambient temperature (6:37-41).

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-5 and 7-11 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed December 21, 2007 have been fully considered but they are not persuasive, because:

Applicant's argument that none of the references in the double patenting rejection teach the use of a tertiary alkyl phosphine as the catalyst is not persuasive as US Patent 6,897,264 does in fact teach the trialkylphosphine (claim 1).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liam J. Heincer whose telephone number is 571-270-3297. The examiner can normally be reached on Monday thru Friday 7:30 to 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo/

Supervisory Patent Examiner, Art Unit 1796  
6-Feb-08

LJH

February 4, 2008